FACT SHEET
AND
STATEMENT OF BASIS

RICHMOND CITY

UTAH POLLUTION DISCHARGE ELIMINATION SYSTEM PERMIT NO. UT0020907

FACILITY CONTACT:

Responsible Official: Mike Hall,
Mayor, City of Richmond
6 West Main, PO Box 9
Richmond, Utah 84333
Phone: (435) 258-1731

Facility Contact: Marlowe C. Adkins
6 West Main, PO Box 9
Richmond, Utah 84333
Phone: (435) 258-2092

Operator: Scott Ball
6 West Main, PO Box 9
Richmond, Utah 84333
Phone: (435) 994-1572

SIGNIFICANT PERMIT CHANGES:

This Permit is being modified due to a change in treatment process at the facility. The facility is changing from a facultative lagoon system to a Membrane Bio-Reactor facility. As a result of this change, the location of the outfall is changing. Additionally, a limit for total phosphorus was added to the permit. This was added because of the finalized TMDL for Cutler Reservoir. The Phosphorous limit for the facility will now be 0.23 Kg per day. This permit modification updates the existing permit to reflect these changes.

The design flow of the facility is changing from 0.4 MGD to 0.5 MGD. This change in design flow required the completion of a new waste load allocation.

The sampling frequency for the facility has been changed to twice monthly based upon the design flow of the facility and the continuous nature of the new discharge.

DESCRIPTION OF FACILITY:

The Richmond City treatment plant (RCTP) has a design capacity of 0.5 MGD. They use an activated sludge process for treatment. Raw wastewater is first treated using a 2 mm screen and compactor followed by grit removal. Following the grit removal system, the process water will enter

an aeration basin and then directly into a Membrane Bioreactor (MBR) for microfiltration. The effluent from the MBR will enter an ultra violet disinfection system and then be discharged into an un-named irrigation ditch or to the old lagoon cells and eventually the Cub River.

DESCRIPTION OF DISCHARGE:

Outfall 001 is from the old lagoon cells located at an approximate latitude 41° 55' 25" N and longitude 111° 49' 45" W and has STORET #490372.

A new outfall will be established. This outfall is to an unnamed irrigation ditch to the Cub River. Outfall 002 is located at an approximate latitude 41 ° 55 ' 29.463" North and longitude 111 ° 50' 2.876" West

RECEIVING WATER CLASSIFICATION:

The Cub River is classified 2B, 3B, and 4. According to Utah Administrative Code (UAC) R317-2-6 the use designations are as follows:

Class 2B Protected for secondary contact recreation such as boating, wading, or similar uses.
Class 3B Protected for warm water species of game fish and other warm water aquatic life, including the necessary aquatic organisms in their food chain.
Class 4 Protected for agriculture use including irrigation of crops and stock watering.

EFFLUENT LIMITATIONS, SELF-MONITORING AND REPORTING REQUIREMENTS:

Permit effluent limitations are summarized below:

Parameter	Effluent Limitations a/			
	Maximum Monthly Avg	Maximum Weekly Avg	Daily Minimum	Daily Maximum
BOD_5, mg/L	25	35	NA	NA
BOD_5 Min. % Removal	85	NA	NA	NA
TSS, mg/L	25	35	NA	NA
TSS Min. % Removal	85	NA	NA	NA
E-Coli, No./100mL	126	157	NA	NA
TRC, mg/L a/	NA	NA	NA	0.419
DO, mg/L	NA	NA	5.5	NA
Oil & Grease, mg/L	NA	NA	NA	Visual/10
pH, Standard Units	NA	NA	6.5	9.0
Total Phosphorous, mg/L	NA	NA	NA	Report
Total Phosphorous, Kg/Day /b	NA	NA	NA	0.23

NA – Not Applicable

a/ TRC is required to be sampled at Outfall 001 when Outfall 001 is discharging.

b/ Total daily load as the sum of all outfalls.

Self-Monitoring and Reporting Requirements a/ b/			
Parameter	Frequency	Sample Type	Units
Total Flow c/ d/	Continuous	Recorder	MGD
BOD_5, Influent e/	2x Monthly	Grab	mg/L
Effluent	2x Monthly	Grab	mg/L
TSS, Influent e/	2x Monthly	Grab	mg/L
Effluent	2x Monthly	Grab	mg/L
E. coli	2x Monthly	Grab	No./100mL
TRC f/	Daily	Grab	mg/L
DO	2x Monthly	Grab	mg/L
Oil & Grease g/	2x Monthly	Visual/Grab	mg/L
PH	2x Monthly	Grab	SU
Total Phosphorous	2x Monthly	Grab	mg/L
Total Phosphorous *h/*	Daily	Calculation	kg/Day

a/ See Definitions, *Part VI*, for definition of terms.

b/ If the effluent is used for Type II reuse as defined in R-317-13, then the facility must meet the requirements for Type II reuse as found in R-317-11.5

c/ Flow measurements of influent/effluent volume shall be made in such a manner that the permittee can affirmatively demonstrate that representative values are being obtained.

d/ If the rate of discharge is controlled, the rate and duration of discharge shall be reported.

e/ In addition to monitoring the final discharge, influent samples shall be taken and analyzed for this constituent at the same frequency as required for this constituent in the discharge.

f/ TRC is required to be sampled at Outfall 001 when Outfall 001 is discharging.

g/ A visual monitoring will be conducted monthly for an oil and grease sheen. If a sheen is observed, then a grab sample shall be taken and shall not exceed 10 mg/L.

h/ Total daily phosphorus load shall be calculated by using the bi-monthly Total Phosphorus concentration and total daily flow of all outfalls.

The sampling frequency for the facility has been changed to twice monthly based upon the design flow of the facility and the continuous nature of the new discharge.

PERMIT DURATION:

It is recommended that this permit be effective for a duration of five (5) years.

Drafted by Lonnie Shull
Environmental Scientist
Utah Division of Water Quality
Drafted May 18, 2009
Updated August 4, 2009
Updated August 10, 2009

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